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	Filing Date		2006-10-12	
	First Named Inventor	Matthew Nugent		
	Art Unit	1651		
	Examiner Name	Thane E UNDERDAHL		
	Attorney Docket Number	701586-053702		

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1	Risau, W., "Mechanisms of angiogenesis." (1997) Nature 386, 671-674.	<input type="checkbox"/>
2	Veikkola, T., Karkkainen, M., Claesson-Welsh, L., and Alitalo, K., "Regulation of Angiogenesis via Vascular Endothelial Growth Factor Receptors." (2000) Cancer Res 60, 203-212.	<input type="checkbox"/>
3	Robinson, C. J., and Stringer, S. E., "The splice variants of vascular endothelial growth factor (VEGF) and their receptors." (2001) J Cell Sci 114, 853-865.	<input type="checkbox"/>
4	Park, J. E., Keller, G. A., and Ferrara, N., "The Vascular Endothelial Growth Factor (VEGF) Isoforms: Differential Deposition into the Subepithelial Extracellular Matrix and Bioactivity of Extracellular Matrix-bound VEGF." (1993) Mol Biol Cell 4, 1317-1326.	<input type="checkbox"/>
5	Bernfield, M., Gotte, M., Park, P. W., Reizes, O., Fitzgerald, M. L., Lincecum, J., and Zako, M., "Functions of Cell Surface Heparan Sulfate Proteoglycans." (1999) Annu Rev Biochem 68, 729-777.	<input type="checkbox"/>
6	Woods, A., Oh, E. S., and Couchman, J. R., "Syndecan Proteoglycans and Cell Adhesion." (1998) Matrix Biol 17, 477-483.	<input type="checkbox"/>
7	Park, P. W., Reizes, O., and Bernfield, M., "Cell Surface Heparan Sulfate Proteoglycans: Selective Regulators of Ligand-Receptor Encounters." (2000) J Biol Chem 275, 29923-29926.	<input type="checkbox"/>
8	Turnbull, J., Powell, A., and Guimond, S., "Heparan sulfate: decoding a dynamic multifunctional cell regulator." (2001) Trends Cell Biol 11, 75-82.	<input type="checkbox"/>
9	Esko, J. D., and Lindahl, U., "Molecular diversity of heparan sulfate." (2001) J Clin Invest 108, 169-173.	<input type="checkbox"/>
10	Nugent, M. A., and Iozzo, R. V., "Fibroblast growth factor-2." (2000) Int J Biochem Cell Biol 32, 115-120.	<input type="checkbox"/>
11	Rapraeger, A. C., Krufka, A., and Olwin, B. B., "Requirement of Heparan Sulfate for bFGF-Mediated Fibroblast Growth and Myoblast Differentiation." (1991) Science 252, 1705-1708.	<input type="checkbox"/>

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12	Fannon, M., Forsten, K. E., and Nugent, M. A., "Potentiation and Inhibition of bFGF Binding by Heparin: A Model for Regulation of Cellular Response." (2000) Biochemistry 39, 1434-1445.	<input type="checkbox"/>
13	Gitay-Goren, H., Soker, S., Vlodavsky, I., and Neufeld, G., "The Binding of Vascular Endothelial Growth Factor to Its Receptors Is Dependent on Cell Surface-associated Heparin-like Molecules." (1992) J Biol Chem 267, 6093-6098.	<input type="checkbox"/>
14	Tessler, S., Rockwell, P., Hicklin, D., Cohen, T., Levi, B. Z., Witte, L., Lemischka, I. R., and Neufeld, G., "Heparin Modulates the Interaction of VEGF165 with Soluble and Cell Associated flk-1 Receptors." (1994) J Biol Chem 269, 12456-12461.	<input type="checkbox"/>
15	Gengrinovitch, S., Berman, B., David, G., Witte, L., Neufeld, G., and Ron, D., "Glypican-1 Is a VEGF165 Binding Proteoglycan That Acts as an Extracellular Chaperone for VEGF165." (1999) J Biol Chem 274, 10816-10822.	<input type="checkbox"/>
16	Iozzo, R. V., and San Antonio, J. D., "Heparan sulfate proteoglycans: heavy hitters in the angiogenesis arena." (2001) J Clin Invest 108, 349-355.	<input type="checkbox"/>
17	Sharma, B., Handler, M., Eichstetter, I., Whitelock, J. M., Nugent, M. A., and Iozzo, R. V., "Antisense Targeting of Perlecan Blocks Tumor Growth and Angiogenesis In Vivo." (1998) J Clin Invest 102, 1599-1608.	<input type="checkbox"/>
18	Kleeff, J., Ishiwata, T., Kumbasar, A., Friess, H., Buchler, M. W., Lander, A. D., and Korc, M., "The Cell-surface Heparan Sulfate Proteoglycan Glypican-1 Regulates Growth Factor Action in Pancreatic Carcinoma Cells and Is Overexpressed in Human Pancreatic Cancer." (1998) J Clin Invest 102, 1662-1673.	<input type="checkbox"/>
19	Folkman, J., "Angiogenesis in cancer, vascular, rheumatoid and other disease." (1995) Nat Med 1, 27-31.	<input type="checkbox"/>
20	Tannock, I. F., "Oxygen diffusion and the distribution of cellular radiosensitivity in tumours." (1972) Br J Radiol 45, 515-524.	<input type="checkbox"/>
21	Shweiki, D., Neeman, M., Itin, A., and Keshet, E., "Induction of vascular endothelial growth factor expression by hypoxia and by glucose deficiency in multicell spheroids: Implications for tumor angiogenesis." (1995) Proc Natl Acad Sci U S A 92, 768-772.	<input type="checkbox"/>
22	Brogi, E., Schatteman, G., Wu, T., Kim, E. A., Varticovski, L., Keyt, B., and Isner, J. M., "Hypoxia-induced Paracrine Regulation of Vascular Endothelial Growth Factor Receptor Expression." (1996) J Clin Invest 97, 469-476.	<input type="checkbox"/>

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23	Gerber, H. P., Condorelli, F., Park, J., and Ferrara, N., "Differential Transcriptional Regulation of the Two Vascular Endothelial Growth Factor Receptor Genes." (1997) J Biol Chem 272, 23659-23667.	<input type="checkbox"/>
24	Akimoto, T., Liapis, H., and Hammerman, M. R., "Microvessel formation from mouse embryonic aortic explants is oxygen and VEGF dependent." (2002) Am J Physiol Regul Integr Comp Physiol 283, R487-495.	<input type="checkbox"/>
25	Xu, L., Fukumura, D., and Jain, R. K., "Acidic Extracellular pH Induces Vascular Endothelial Growth Factor (VEGF) in Human Glioblastoma Cells via ERK1/2 MAPK Signaling Pathway." (2002) J Biol Chem 277, 11368-11374.	<input type="checkbox"/>
26	Nackaerts, K., Verbeken, E., Deneffe, G., Vanderschueren, B., Demedts, M., and David, G., "Heparan Sulfate Proteoglycan Expression in Human Lung-Cancer Cells." (1997) Int J Cancer 74, 335-345.	<input type="checkbox"/>
27	Matsuda, K., Maruyama, H., Guo, F., Kleeff, J., Itakura, J., Matsumoto, Y., Lander, A. D., and Korc, M., "Glypican-1 Is Overexpressed in Human Breast Cancer and Modulates the Mitogenic Effects of Multiple Heparin-binding Growth Factors in Breast Cancer Cells." (2001) Cancer Res 61, 5562-5569.	<input type="checkbox"/>
28	D'Arcangelo, D., Facchiano, F., Barlucchi, L. M., Melillo, G., Illi, B., Testolin, L., Gaetano, C., and Capogrossi, M. C., "Acidosis Inhibits Endothelial Cell Apoptosis and Function and Induces Basic Fibroblast Growth Factor and Vascular Endothelial Growth Factor Expression." (2000) Circ Res 86, 312-318.	<input type="checkbox"/>
29	Nugent, M. A., and Edelman, E. R., "Kinetics of Basic Fibroblast Growth Factor Binding to Its Receptor and Heparan Sulfate Proteoglycan: A Mechanism for Cooperativity." (1992) Biochemistry 31, 8876-8883.	<input type="checkbox"/>
30	Moscatelli, D., "Metabolism of Receptor-bound and Matrix-bound Basic Fibroblast Growth Factor by Bovine Capillary Endothelial Cells." (1988) J Cell Biol 107, 753-759.	<input type="checkbox"/>
31	Keyt, B. A., Berleau, L. T., Nguyen, H. V., Chen, H., Heinsohn, H., Vandlen, R., and Ferrara, N., "The Carboxyl-terminal Domain (111-165) of Vascular Endothelial Growth Factor Is Critical for Its Mitogenic Potency." (1996) J Biol Chem 271, 7788-7795.	<input type="checkbox"/>
32	Vlodavsky, I., Folkman, J., Sullivan, R., Fridman, R., Ishai-Michaeli, R., Sasse, J., and Klagsbrun, M., "Endothelial cell-derived basic fibroblast growth factor: Synthesis and deposition into subendothelial extracellular matrix." (1987) Proc Natl Acad Sci U S A 84, 2292-2296.	<input type="checkbox"/>
33	Bashkin, P., Doctrow, S., Klagsbrun, M., Svahn, C. M., Folkman, J., and Vlodavsky, I., "Basic Fibroblast Growth Factor Binds to Subendothelial Extracellular Matrix and Is Released by Heparitinase and Heparin-like Molecules." (1989) Biochemistry 28, 1737-1743.	<input type="checkbox"/>

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34	D'Angelo, G., Struman, I., Martial, J., and Weiner, R. I., "Activation of mitogen-activated protein kinases by vascular endothelial growth factor and basic fibroblast growth factor in capillary endothelial cells is inhibited by the antiangiogenic factor 16-kDa N-terminal fragment of prolactin." (1995) Proc Natl Acad Sci U S A 92, 6374-6378.	<input type="checkbox"/>
35	Forsten, K. E., Akers, R. M., and San Antonio, J. D., "Insulin-Like Growth Factor (IGF) Binding Protein-3 Regulation of IGF-I Is Altered in an Acidic Extracellular Environment." (2001) J Cell Physiol 189, 356-365.	<input type="checkbox"/>
36	Wahl, M. L., and Grant, D. S., "Effects of microenvironmental extracellular pH and extracellular matrix proteins on angiostatin's activity and on intracellular pH." (2000) Gen Pharmacol 35, 277-285.	<input type="checkbox"/>
37	Detmar, M., Brown, L. F., Berse, B., Jackman, R. W., Elicker, B. M., Dvorak, H. F., and Claffey, K. P., "Hypoxia Regulates the Expression of Vascular Permeability Factor/Vascular Endothelial Growth Factor (VPF/VEGF) and its Receptors in Human Skin." (1997) J Invest Dermatol 108, 263-268.	<input type="checkbox"/>
38	Roskams, T., De Vos, R., David, G., Van Damme, B., and Desmet, V., "Heparan Sulphate Proteoglycan Expression in Human Primary Liver Tumours." (1998) J Pathol 185, 290-297.	<input type="checkbox"/>
39	Dowd, C. J., Cooney, C. L., and Nugent, M. A., "Heparan Sulfate Mediates bFGF Transport through Basement Membrane by Diffusion with Rapid Reversible Binding." (1999) J Biol Chem 274, 5236-5244.	<input type="checkbox"/>
40	Ioachim, E., Charchanti, A., Briasoulis, E., Karavasilis, V., Tsanou, H., Arvanitis, D. L., Agnantis, N. J., and Pavlidis, N., "Immunohistochemical expression of extracellular matrix components tenascin, fibronectin, collagen type IV and laminin in breast cancer: their prognostic value and role in tumour invasion and progression." (2002) Eur J Cancer 38, 2362-2370.	<input type="checkbox"/>
41	Fairbrother, W. J., Champe, M. A., Christinger, H. W., Keyt, B. A., and Starovasnik, M. A., "Solution structure of the heparin-binding domain of vascular endothelial growth factor." (1998) Structure 6, 637-648.	<input type="checkbox"/>
42	Tuder, R. M., Flook, B. E., and Voelkel, N. F., "Increased Gene Expression for VEGF and the VEGF Receptors KDR/Flk and Flt in Lungs Exposed to Acute or to Chronic Hypoxia." (1995) J Clin Invest 95, 1798-1807.	<input type="checkbox"/>

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